[redacted] ORDINANCE
NO: 00348

AN ORDINANCE relating to the King County Plumbing Code and amending Resolution #28817, Chapter 13.01 of the King County Code.

BE IT ORDAINED BY THE KING COUNTY COUNCIL:

Section 1. Section 13.01.320 of the King County Code is hereby amended as follows:

Plumbing Advisory Board.

((A.--Established.---There-is-hereby-established-a "Plumbing-Advisory-Board",-the-members-of-which-shall-be-one-person representative-of-each-of-the-following:--journeyman-plumbers, plumbing-contractors,-plumbing-equipment-distributors,-professional mechanical-engineers,-sanitary-engineers,-and-the-Director-of-Public Health,-ex-officio.

B.--Appointment---Term.--Members-of-the-Plumbing-Advisory Board,-other-than-ex-officio,-shall-be-appointed-by-the-Director of-Public-Health-and-vacancies-among-such-members-shall-be-filled in-the-same-manner.---Upon-naming-of-the-appointive-members-of-the Board,-the-Director-of-Public-Health-shall-designate-one-such member-to-a-term-ending-December-31,-1964,-one-such-member-to-a term-ending-December-31,-1965,-one-such-member-to-a-term-ending December-31,-1966,-and-one-such-member-to-a-term-ending-December-31, 1967,-and-one-such-member-to-a-term-ending-December-31,-1968,--thereafter-such-members-shall-be-appointed-for-a-term-of-five-years ending-December-31-of-the-fifth-year-of-said-term.

C.--Chairman.---The-Plumbing-Advisory-Board-shall-elect-a-chairman,-who-shall-serve-at-the-pleasure-of-the-members.---Such board-may-adopt-rules-of-procedure-and-shall-meet-on-call,-subject to-timely-notice.

D.--Powers.--The-plumbing-advisory-board-may-examine rulings,-or-proposed-rulings,-of-the-director-of-public-health

~~related to this title, it may hold hearings, and it may make recommendations but it shall act in an advisory capacity only.))~~

NEW SECTION. There is hereby established a "Plumbing Advisory Board" which shall be the same Advisory Board as created by Seattle City Ordinance #98015.

The Plumbing Advisory Board may examine rulings, or proposed rulings of the Director of Public Health related to this resolution, hold hearings and make recommendations but it shall act in an advisory capacity only.

Sec. 2. Section 13.01.370 of the King County Code is hereby amended as follows:

Journeyman Licenses. There shall be a journeyman plumber's license and a journeyman lawn sprinkler mechanic's license. It is unlawful to do any work for which a plumbing permit is required by this title, except as follows:

(1) An apprentice or probationer may do work on a plumbing system under the supervision and in the immediate presence of the holder of a journeyman's license to do such work.

(2) A resident owner may personally do work on a plumbing system in his own single family residence or usual accessory building.

(3) NEW SECTION. A person holding validated journeyman plumber's license may do work on a plumbing system as a journeyman plumber.

NEW SECTION. Sec. 3. Section 13.01.375 of the King County Code is hereby amended as follows:

Validated Journeyman Licenses. Any person holding an unexpired journeyman plumber's license or equivalent thereof issued by a jurisdiction other than the City of Seattle or King County may make application to the Director of Public Health for validation thereof. Such application shall be made on a form furnished by the Director of Public Health. Such license or equivalent when valid-

ated by the Director of Public Health shall permit the holder thereof to do plumbing work as a journeyman plumber in King County during the unexpired life of said license or equivalent, but not exceeding a period of one year. The Director of Public Health may renew such validation annually upon application made therefor. No such license or equivalent shall be validated nor shall any validation be renewed unless the issuing jurisdiction shall have been approved by the Plumbing Examining Board as maintaining standards and requirements for the issuance of such license or equivalent which are at least equal to those herein provided for the examination and certification of competency of a journeyman plumber.

Sec. 4. Section 13.01.390 License Fees, is hereby amended as follows:

A. SCHEDULE. Annual and annual renewal fees for licenses required by this title are as follows:

Plumbing Contractor's license $100.00

Lawn Sprinkler Contractor's license.... 50.00

Journeyman plumber's license ..... ((~~7.50~~)) $10.00

Journeyman Lawn Sprinkler Mechanic's license ... 5.00

B. EXPIRATION. All licenses shall expire on the 31st day of May of each year and where a license is issued for less than six (6) months before the date of expiration of the license the fee shall be one-half (1/2) the annual fee.

C. TRANSFERRAL. A contractor's license may be transferred to a new location upon payment of ten per cent (10%) of the annual fee.

D. RENEWAL. Journeyman licenses may be renewed upon payment of renewal fee if renewal is applied for within thirty (30) days after expiration of such license. A journeyman license may be reissued without examination to a person formerly holding a

journeyman license which has been expired for a period of over thirty (30) days, upon payment of the renewal fee plus a fee of ten dollars ($10.00).

NEW SECTION. Sec. 5. Section 13.02.015 of the King County Code is hereby amended as follows:

Plastic pipe and fittings. ~~((-Acrylonitrile-Butadiene-Styrene-(ABS)-plastic-drain,-waste,-and-vent-pipe-and-fittings may-be-installed-above-ground-only-in-single-family-dwellings-in accordance-with-Commercial-Standard-CS-270-65-or-Uniform-Plumbing Code-Standard-UPC-PS-17-66.))~~

~~((ABS-plastic-pipe-and-fittings-shall-be-installed-in accordance-with-all-applicable-sections-of-the-Plumbing-Code-herein pertaining-to-above-ground-installation-of-drain,-waste,-and-vent pipes-and-fittings.))~~

*Acrylonitrile-Butadiene-Styrene A.B.S. and *Polyvinal Chloride (P.V.C.) drain, waste and vent pipe and fittings are approved for use in H, I and J occupancies for above and below ground drain, waste and vent installations. When used in H occupancies refer to Building Code in relation to fire restrictions in Types III, IV, and V construction. Plastic pipe and fittings are not approved in Types I and II construction. Group H occupancies shall be: Hotels, Motels; apartment houses; dormitories, convents and monasteries with capacity of more than 12. Group I occupancies shall be: one and two family dwellings; convents and monasteries with capacity of 12 or less. Group J occupancy shall be: private garages, car ports, sheds and agricultural buildings used as accessory buildings only and not over 1,000 square feet in area. Vertical soil and vent stacks shall not exceed thirty (30) feet in height. The thirty (30) feet shall be figured from the base of the stack at the finish floor level to the ceiling of the top floor. The extension of the vents through the roof above the top floor ceiling may be of ABS or PVC material.

ABS and PVC plastic pipe and fittings shall be installed in accordance with all applicable sections of the Plumbing Code herein pertaining to above and below ground installation of drain, waste, and vent pipe and fittings.

* See Table 2-1 for material and installation standards which is hereby adopted.

Sec. 6. Section 13.02.030 of the King County Code is hereby amended as follows:

Copper Tubing

A. UNDERGROUND PIPING. Copper tubing for underground drainage and vent piping shall have a weight of not less than that of copper water tube Type L.

B. ABOVE GROUND PIPING. Copper tubing for above ground drainage and vent piping shall have a weight of not less than that of copper drainage tube type D.W.V.

C. WATER PIPING. Copper tubing for water piping ~~above or~~ below ground shall have weight of not less than that of copper tube Type L. Copper water tubing above ground shall have a weight of not less than copper tubing Type M.

D. MARKING. In addition to other marking, all hard drawn copper tubing shall be marked by means of continuous and indelible colored stripe at least one-quarter (1/4) inch in width as follows: Type K, green; Type L, blue; Type M, red; Type DWV, yellow.

Sec. 7. Section 13.05.070 of the King County Code is hereby amended as follows:

Vent pipe grades and connections.

A. GENERALLY. Every vent shall be free from drops or sags, and shall be level or so graded and connected as to drip back by gravity to the drainage pipe it serves. Every vent connected to a horizontal drainage pipe shall be taken off above the center

line of such pipe ahead of the trap served. Unless impracticable due to structural conditions, every vent shall rise vertically to point not less than six (6) inches above the flood level rim of the fixture it serves before offsetting horizontally, and whenever two (2) or more vents converge, each such vent shall rise to a point at least six (6) inches in height above the top of the fixture it serves before being connected to any other vent.

B. LOCATION OF VENT PIPE OPENING. Except for water closets and similar fixtures, the vent pipe opening in the drainage pipe serving a fixture trap shall not be below the weir of such trap.

C. BACK TO BACK FIXTURES. Two (2) like fixtures set back to back may both be served by a single vertical vent required for one (1) such fixture, provided that each such fixture discharges separately into an approved double fitting with inlet openings at the same level.

NEW SECTION. D. VENTING WALL HUNG PLUMBING FIXTURES. Carrier fittings. Groups or rows of wall hung toilets or urinals or combinations of these fixtures shall be vented individually. On a horizontal soil line the individual vent for each fixture shall be an integral part of each carrier fitting. The vent may be taken off from the top horizontal center flow line of the carrier fitting not more than 15" from face of carrier.

Wall hung toilets or urinals installed back to back on a horizontal soil line with a dual inlet carrier fitting may be served by a single vent serving both fixtures. The vent on the dual inlet carrier fitting may be taken off from the top horizontal center flow line of the carrier fitting and not more than 15" from the beginning of the vent to the face of the carrier.

Sec. 8. Section 13.05.080 of the King County Code is hereby amended as follows:

Vent Termination.

(a) Every vent shall extend or shall be connected to another vent which extends, through a flashing in the roof to the building served, and terminates vertically not less than ten (10) inches above the roof ((~~or parapet wall of such building~~)) and not less than one foot from any vertical surface.

(b) Every vent shall terminate not less than two feet above or ten feet from any window, door, opening, air intake, or vent shaft, and not less than ten feet from the line of any property which may be built upon.

(c) Flagpoling of vents is prohibited except where the roof is used for purposes other than weather protection. In such case the vent shall extend not less than seven feet above the roof and shall be securely stayed.

(d) Joints at the roof around vent pipes shall be made watertight by the use of approved lead flashings. The base of flashings for vents two inches or less in size shall be not less than ten inches by twelve inches. The base of flashings for vents more than two inches, but not more than four inches in size shall be not less than fourteen inches by fourteen inches. The base of flashings for vents over four inches in size shall extend at least six inches from all sides of the pipe.

NEW SECTION . Sec. 9. Section 13.06.150 of the King County Code is hereby amended as follows:

Parking Garage Drainage Systems. All floor drainage under the roof of a parking garage shall be connected to the sanitary drainage system. When the top floor of the building is used as a roof as well as a parking area, the drainage from the roof shall be connected to the storm drainage system. Drainage

from conventional plumbing fixtures shall not be interconnected with the floor drainage system. Provided, however, drainage lines from car or truck washing equipment may be connected to the floor drainage system through an approved interceptor. Waste pipe sizing shall be in accordance with tables 4-3 and 4-4 of the Plumbing Code.

Waste lines shall be a minimum of 3" in size. Floor drains or floor drain openings shall be equipped with approved strainers and need not be trapped when connected to the building drain through a properly trapped and vented interceptor. Traps should not be used when the floor drains are located in areas exposed to freezing temperature or outside atmosphere. Relief venting at the upstream end of an indirect floor drainage system without traps is not required. Interceptors located in areas not open to outside or mechanical ventilation shall be covered and equipped with a local vent. The local vent shall be connected to the plumbing venting system or terminate in the outside atmosphere. The waste line from floor drains entering the interceptor shall be above the waste line discharging from the interceptor to the building drain. Both entering and discharging waste lines in the interceptor shall have a water seal of at least 6". Floor drain traps need not be vented individually if line venting is used through an indirect waste system with a properly trapped and vented interceptor. A line vent for floor drains shall terminate through the roof or to outside atmosphere. When using line venting, the terminating vents, if more than one, shall be equal in cross sectional area to the size of the waste line entering the interceptor or the line vent may continue full size from the interceptor to the point of termination. All plans for parking garage floor drainage systems shall be submitted to the Director prior to installation for approval.

Sec. 10. Section 13.08.030 of the King County Code is hereby amended as follows:

Use of Joints

(a) CAST IRON TO CAST IRON. Joints in cast iron piping shall be caulked joints except that approved neoprene or similar gaskets may be used, providing that (1) The piping shall be manufactured to close tolerances, and without beads on the spigot ends; (2) Hubs shall be modified to receive the gaskets; (3) Gaskets shall be capable of maintaining a tight seal ((~~with any joint deflection up to ten degrees;~~)) and (4) Joints shall be assembled by means of special tools.

((~~If a neoprene connector is to be used to join cast iron from drainage and vent piping, the method of joining shall not be changed from neoprene to lead and oakum and then back to neoprene, or changed from lead and oakum to neoprene and then back to lead and oakum.~~))

(b) CAST IRON TO WROUGHT IRON, STEEL, COPPER, OR BRASS. Joints between cast iron pipe and wrought iron, steel, copper or brass pipe shall be caulked joints, or shall be threaded joints made by use of approved adapter fittings.

(c) LEAD TO LEAD, COPPER OR BRASS. Joints in lead piping, or between lead pipe and copper or brass pipe, caulking ferrules, soldering nipples or traps shall be wiped joints.

(d) LEAD TO CAST IRON. Joints between lead pipe and cast iron pipe shall be made by using approved caulking ferrules. In such joints, the connection between the lead pipe and the ferrule shall be a wiped joint, and the connection between the ferrule and the cast iron pipe shall be a caulked joint.

(e) LEAD TO WROUGHT IRON OR STEEL. Joints between lead pipe and wrought iron or steel pipe shall be made by using approved soldering nipples. In such joints, the connection between the

lead pipe and the soldering nipple shall be a wiped joint, and the connection between the fitting and the wrought iron or steel pipe shall be a threaded joint.

(f) COPPER TUBING. Joints in copper tubing shall be soldered, sweat or flared joints.

(g) COPPER TUBING TO THREADED PIPE. Joints between copper tubing and threaded pipe shall be made by using approved adapter fittings. In such joints, the connection between the tubing and fitting shall be a soldered, sweat, or flared joint, and the connection between the fitting and the pipe shall be a threaded joint.

(h) COPPER TUBING TO CAST IRON PIPE. Joints between copper tubing and cast iron pipe and fitting shall be made with the proper copper adapter fittings.

(i) JOINING NO HUB CAST IRON PIPE AND FITTINGS. (1) Stainlees steel clamps of a type approved by the Director may be used when ends of pipe and fittings to be joined are firmly seated against separator ring in neoprene gasket. Cut pipe smooth and square and tighten stainless steel clamps alternately and firmly on pipe and fittings to about 4 foot pounds torque. Stainlees steel clamps used in joining hubless cast iron waste and vent piping are approved in single family dwellings above ground level.

NEW SECTION. (2) Cast iron mechanical clamp joints of a type approved by the Director may be used for joining no hub cast iron soil pipe and fittings in any type occupancy, above or below ground. (IAPMO Approval - Application No. 4421 file No. 761 (1969) Morris no hub Cast Iron Coupling).

(j) JOINING HIGH SILICON IRON AND EPOXY RESIN PIPE AND FITTINGS. A stainless steel clamp joint may be used with a neoprene and teflon joint seal of a type approved by the Director for use in chemical waste and vent systems only. The stainless steel

clamp joint is approved for above ground chemical waste and vent systems only.

NEW SECTION. (k) GALVANIZED STEEL PIPE TO GALVANIZED STEEL PIPE. Galvanized steel (A.S.T.M. 120) pipe to galvanized steel pipe may be joined with approved mechanical pipe joints (Victaulic type joints) in drain, waste and vent or storm drainage systems above ground. Type of fittings used shall conform with other sections of the Plumbing Code applicable to the installation of waste and vent systems.

Sec. 11. Section 13.08.090 of the King County Code is hereby amended as follows:

Prohibited joints and connections. No fitting or connection which has an enlargement, chamber or recess, with a ledge shoulder or reduction of pipe area, or that offers an abnormal obstruction to flow, shall be used in a drainage system. The enlargement of a three (3) inch closet bend or stub to four (4) inches is not such obstruction. ((~~Four-by-three-(4-x-3)-reducing closet-rings-are-prohibited,-except-as-specifically-approved-by-the Director-of-Public-Health.~~))

Sec. 12. Section 13.10.030 of the King County Code is hereby amended as follows:

Cross-Connection Control.

(a) No water operated equipment or mechanism shall be installed, or water treating chemical or substances used, if such equipment, mechanism, chemical or substance may cause a cross-connection, or pollution of a domestic water supply.

(b) Where practicable, every potable water supply inlet or connection to a fixture or appliance shall be protected from backflow by means of an approved air gap on the discharge side of the control valve. Where it is impracticable to provide such air gap, the fixture or appliance may be protected from backflow or

back siphonage by an approved vacuum breaker or backflow preventer installed on the discharge side of the last valve and located at least six (6) inches above the flood level rim of the fixture served. Where it is not practicable to provide an approved air gap or backflow preventer, as may be the case in connections to cooling jackets, condensers or other industrial or special appliances, the Director of Public Health may require equivalent protection by such other means as he may deem practicable. The omission of a backflow preventer may be approved by the Director of Public Health only when it is evident that no cross-connection exists or could occur which would cause pollution or contamination of the potable water supply.

(c) All backflow prevention devices installed in a potable water supply system shall be maintained in good working condition. The Director of Public Health may inspect any backflow prevention device and, if such is found to be defective or inoperable, shall require its repair or replacement. No backflow prevention device shall be removed from use or relocated, or other device substituted, without the approval of the Director of Public Health.

Sec. 13. Section 13.10.130 of the King County Code is hereby amended as follows:

(Water Cooled Equipment). Water cooled compressors or other approved water cooled equipment ~~may~~ shall be protected by an approved ((~~vacuum-breaker~~)) backflow preventer installed ahead of the equipment on the discharge side of the last valve and at least six (6) inches above the highest point reached by any water passing through or discharging from such equipment; ((~~and~~)) provided that such equipment subject to continuous flow for periods of more than twelve (12) hours ~~shall~~ may be provided with an

approved "pressure type" vacuum breaker installed at least twelve (12) inches above the highest point reached by any water passing through or discharging from such equipment, ((~~provided-that-when in-the-opinion-of-the-Director-of-Public-Health-no-hazard-to-the potable-water-supply-system-is-evident,-omission-of-such-vacuum breakers-may-be-approved~~)). The omission of a backflow preventer may be approved by the Director of Public Health only when it is evident that no cross-connection exists or could occur which would cause pollution or contamination of the potable water supply.

Sec. 14. Section 13.10.170 of the King County Code is hereby amended as follows:

Backflow or back-siphonage. Backflow or back-siphonage from a nonpotable water line into a domestic water line shall be prevented by the installation of a gravity tank or by a tank having a pump for desired nonpotable water. The domestic water inlets to such nonpotable water tanks shall have an approved air gap. Where it is impracticable to install such nonpotable water tanks and the use of other type backflow or back-siphonage prevention devices is approved, they shall be installed as follows:

(1) Where reverse flow due only to gravity or a vacuum within the line can occur, an approved atmospheric loop or other approved backflow prevention device shall be installed in the supply line. When approved, a pressure vacuum breaker unit shall be installed at a height of at least twelve (12) inches above the highest tank, equipment or point of usage of the nonpotable water. When approved, reduced pressure principle backflow prevention devices shall be installed in an approved manner, and in no case less than twelve (12) inches above the surrounding ground or floor.

(2) Where backflow can occur due to steam boilers, pumps, etc., creating a higher pressure in the nonpotable water line, an

approved backflow prevention device shall be installed in the supply line at least twelve (12) inches above the surrounding ground or floor.

(3) ((~~It shall be unlawful to install a pressure-type vacuum breaker without first obtaining approval from the Director of Public Health. Upon securing approval from the Director to install and operate a pressure-type vacuum breaker, a plumbing permit shall be secured and posted on the job site. The permit fee shall be $10.00 for each device. The pressure-type vacuum breaker shall be subjected to initial testing procedures as required by the Director. Each year after the first year of operation, an annual test shall be given each pressure-type vacuum breaker as required by the Director. The first annual test shall be given one year from the date of the initial installation and approval. Following approval of each annual test on pressure-type vacuum breakers, an operating permit will be issued to the owner or occupant. The annual fee for the operating permit for each device shall be $10.00. The responsibility of having the annual tests for pressure-type vacuum breakers carried out shall be that of the owner or occupants but shall be done by a person qualified and approved by the Director to make such tests. Refusal on the part of an owner or occupant to obtain the annual tests on pressure-type vacuum breakers and secure approval from the Director of Public Health may result in the termination of the public water supply to the premises.~~))

NEW SECTION. It is unlawful to install a reduced pressure principle backflow prevention device without first obtaining approval so to do from the Director of Public Health. Upon obtaining said approval, a plumbing permit shall be secured with payment of the fee prescribed therefor in Section 13.01.330. Such permit shall be conspicuously posted in the immediate area where the

installed. Such device shall be subject to an initial testing procedure upon installation and an annual operating test thereafter as directed a rd approved by the Director of Public Health.

Upon approval of each such annual operating test and payment of the prescribed fee, an operating permit will be issued to the owner or occupant of the premises whereon such backflow prevention device is installed. It shall be the responsibility of such owner or occupant to cause such annual tests to be made by a person qualified and approved by the Director of Public Health to perform such tests. Refusal by the owner or occupant to cause such tests to be made and to obtain approval for the continued operation of such backflow prevention device shall be sufficient cause for the termination of the public water service to the premises.

(4) No reduced pressure principle backflow prevention device shall be installed unless a pressure relief valve shall also be installed in accordance with applicable sections of the plumbing code pertaining to pressure relief valves.

(5) All reduced pressure principle backflow prevention devices shall be subject to testing at any time deemed necessary by the Director of Public Health.

(6) All reduced pressure principle backflow prevention devices installed at the time this amending resolution becomes, effective shall be subject to annual testing as required herein for new installations of such devices.

Sec. 15. Section 13.10.180 of the King County Code is hereby amended as follows:

Materials

A. WATER PIPE. Water pipe and fittings shall be of brass, copper, cast iron, galvanized malleable iron, galvanized

wrought iron, galvanized steel, or other approved materials. Approved mechanical joints may be used in ((~~cold~~)) water piping. ((~~two inches and larger in size.~~))

B. GALVANIZING. Cast iron water fittings two (2) inches or less in size, when used in connection with potable water piping, shall be galvanized.

C. PROHIBITED PIPING. No pipe or tubing used for gas, oil, wastes or similar purposes shall be used for water piping. Inside surfaces of water piping shall not be such as to be detrimental to potable water.

Sec. 16. Section 13.10.250 of the King County Code is hereby amended as follows:

Installation of water piping.

(a) All water piping shall be supported in an approved manner. Burred ends shall be reamed to the full bore of the pipe. Changes in direction shall be made by the appropriate use of fittings. All such piping, equipment, appurtenances and devices shall be installed in a workmanlike manner.

(b) Trench. Water service pipes or any underground water pipes shall not be run or laid in the same trench with non-metalic building sewer or drainage piping, except as follows. The water service pipe may be placed in the same trench with such building sewer provided both the following conditions are met. The bottom of the water service pipe, at all points, shall be at least twelve inches above the top of the sewer line. The water service pipe shall be placed on a solid shelf excavated at one side of the common trench.

(c) Concrete Slab. No water piping shall be installed within any concrete slab. Provided that if such is impracticable due to structural conditions, water piping may be installed in chases, sleeves, or ducts.

(d) Water supply piping shall be protected from frost. Hose bibbs shall be protected by means of ~~frostproof~~ resistant valves or other approved valves.

TABLE NO. 2-1
PLUMBING MATERIAL STANDARDS

MATERIALS AND PRODUCTS	ANSI[1]	ASTM[2]	FS[3]	AWWA[4], CS[5], UPC[6]
Ferrous Pipe and Fittings:				
Cast iron drainage fittings	------	-----	-----	UPC PS 5 (1959) C.F. 248009
Cast iron soil pipe and fittings	A40.1 (1935) C.F. 248026	____	-----	CS 188 (1966) Morris no hub Cast Iron Coupling Application No. 4421 File No. 761 (1969)
Cast iron water pipe	A21.2 (1953) C.F. 248015		WW-P-421b (1961) C.F. 248045	AWWA C102 (1953) C.F. 248015
Wrought iron pipe	B36.2 (1961) C.F. 248025	-----	WW-P-441C (1) (1964)	-----
Steel pipe	-----	A120 (1965) C.F. 248056	WW-P-406B (1961) C.F. 248043	-----
Open hearth iron pipe	-----	-----	WW-P-406B (1961) C.F. 248043	-----
Hubless cast iron sanitary systems *standard 301 (1965T) C.F. 259565				
Malleable iron threaded fittings	B16.3 (1951) C.F. 248024	-----	WWP-521d (1959) C.F. 248042	-----
Pipe threads	B2.1 (1960) C.F. 248022	-----	-------	-----
Non-ferrous Pipe and Fittings:				
Seamless brass tubing	-----	B135 (1961) C.F. 248055	WW-T-791 (1933) C.F. 248041	-----
Red brass pipe	-----	B43 (1958) C.F. 248054	WW-P-351 (1930) C.F. 248040	-----

*Standards sponsored by Cast Iron Soil Pipe Institute.

TABLE NO. 2-1
PLUMBING MATERIAL STANDARDS
(continued)

MATERIALS AND PRODUCTS	ANSI[1]	ASTM[2]	FS[3]	AWWA[4], CS[5], UPC[6]
Copper pipe	H26.1 (1959) C.F. 248023	B42 (1958) C.F. 248053	WW-P-377b (1955) C.F. 248039	-----
Bronze threaded fittings	B16.15 (1958) C.F. 248021	-----	WW-P-460a (1961) C.F. 248038	-----
Seamless copper tubes	-----	B75 (1961) C.F. 248052	WW-T-797a (1958) C.F. 248037	-----
Seamless copper water tube (K.L. & M)	-----	B88 (1961) C.F. 248051	WW-T-799a (1946) C.F. 248036	-----
Copper drainage tube (DWV)	-----	B306 (1961) C.F. 248050	-----	CS 229 (1960) C.F. 248043
Acrylonitrile-Butadiene-Styrene (ABS) (Drain, Waste and vent)	-----	-----	-----	CS 270 (1965) PS 17 (1966) UPC IS 5 (1966) UPC
Polyvinal - Chloride (PVC) (Drain, Waste and Vent)	-----	D2665 (1968)	-----	CS 272- (1965) IS 9 (1968) UPC
Polyethylene water service Pipe	-----	-----	-----	IS7 (1966) P UPC PS24 (1968) UPC PS25 (1968) UPC
Installation standard for solvent cemented PVC pipe for water service	-----	-----	-----	IS8 (1967) UPC
Wrought copper and wrought bronze solder joint fittings	B16.22 (1951) C.F. 248020	----	-----	-----
Cast brass solder joint fittings	B16.18 (1950) C.F. 248019	-----	-----	-----
Cast bronze solder joint drainage fittings	B16.23 (1960) C.F. 248018	-----	-----	-----
Brass fittings for flared copper tubes	B16.26 (1958) C.F.248017	-----	-----	-----

TABLE NO. 2-1
PLUMBING MATERIAL STANDARDS
(continued)

MATERIALS AND PRODUCTS	ANSI[1]	ASTM[2]	FS[3]	AWWA[4], CS[5], UPC[6]
Lead Pipe bends and traps	-----	-----	WW-P-325 (1944) C.F. 248035	------
P-Traps	-----	-----	-----	UPC PS 2 (1958) C.F. 248007
Wall adapter for tubing traps	-----	-----	-----	UPC PS 7 (1955) C.F. 248008
Brass directional tees---elbows	-----	-----	-----	UPC PS 9 (1955) C.F. 248006
Plumbing Fixtures:				
Staple vitreous china plumbing fixtures	-----	-----	-----	CS 20 (1956) C.F. 248012
Enameled cast iron plumbing fixtures	-----	-----	-----	CS 77 (1956) C.F.248010
Eartherware vitreous glazed plumbing fixtures	-----	-----	-----	CS 111 (1943) C.F. 248011
Plumbing fixtures for land use	-----	-----	WW-P-541b (1962) C.F.248034	-----
Drinking fountains	Z4.2 (1942) C.F. 248027	-----	-----	-----
Gel-coated glass-fiber-reinforced polyester resin bathtubs	Z124.1 (1967)	-----	-----	-----

TABLE NO. 2-1
PLUMBING MATERIAL STANDARDS
(continued)

MATERIALS AND PRODUCTS	ANSI[1]	ASTM[2]	FS[3]	AWWA[4], CS[5], UPC[6]
Gel-coated glass-fiber-reinforced polyester resin shower receptors	ANSI - Z124.2 (1967)	-----	-----	-----
Valves:				
Bronze gate	-----	-----	WW-V-54b (1962) C.F.248033	-----
Cast iron gate	-----	-----	WW-V-58 (1946) C.F.248032	-----
Miscellaneous:				
Caulking lead	-----	-----	QQ-L-156 (1946) C.F.248031	-----
Casting brass	-----	B146 (1952) C.F. 248049	-----	-----
Sheet lead	-----	-----	QQ-L-201d (1961) C.F. 248030	
Sheet, rod and bar copper	-----	B152 (1960) C.F. 248048	-----	-----
Sheet steel or iron, galvanized	G8.2(1960) C.F. 248016	A93T (1959) C.F. 248046	-----	-----
Soft solder	-----	B32T (1958) C.F. 248047	QQ-S-571c (1960) C.F. 248029	-----
Fixture setting compounds	-----	-----	HH-C-536a (1954) C.F. 248028	-----

Abbreviations

[1]ANSI - American National Standards approved by the American National Standards Institute, Inc., 1430 Broadway, New York, N. Y., 10018.

[2]ASTM - Standards and Tentative Standards published by the American Society for Testing Materials, 1916 Race Street, Philadelphia, Pennsylvania. 19103.

[3]FS - Federal Specifications published by the Federal Specifications Board, obtainable from Superintendent of Documents, Government Printing Office, Washington, D. C., 20025.

[4]AWWA - Standards and Tentative Standards published by the American Water Works Association, 2 Park Avenue, New York, N. Y., 10016.

[5]CS - Commercial Standards published by the United States Department of Commerce, obtainable from Superintendent of Documents, Government Printing Office, Washington, D. C., 20025.

[6]UPC - Standards and Tentative Standards sponsored by International Association of Plumbing Mechanical Officials (formerly Western Plumbing Officials Association), 5032 Alhambra Avenue, Los Angeles, California, 90032.

TABLE NO. 9-1
Minimum Plumbing Facilities[1]

Type of Building or Occupancy[2]	Water Closets		Urinals[8]	Lavatories[10]	Bathtubs or Showers	Drinking Fountains[3]
	Males	Females	Fixtures/Males	Fixtures/Persons	Fixtures/Person	Persons
Schools	AS REQUIRED BY STATE LAW					
Theaters, auditoriums other places of public assembly	1 - 1-200 2 -201-400 3 -401-600 1 for each additional 500 males and 1 for each additional 300 females	1 - 1-100 2 -101-200 3 -201-400	1 - 1-200 2 -201-400 3 -401-600 1 for each additional 300 males	1 - 1-200 2 -201-400 3 -401-750 1 for each additional 500 persons	- - -	1 - 1-100 2 -101-500 1 for each additional 1000
Food service establishments, taverns, cocktail bars, restaurants[11]	1 - 1-60 1 for for each additional 60	1 - 1-30 1 for each additional 30	1 - 1-30 2 - 31-90 1 for each additional 60	1 per 60 females 1 per 60 males	- - -	- - -
	Fixtures	Employees				
Office buildings stores, and similar establishments[9]	1 2 3 4 5 6 1 for each additional 50	1 - 15 16 - 35 36 - 55 56 - 80 81- 100 101 -150	***	1 -1-15 2 -16-55 3 -56-80 4 -81-100 5 -101-150 1 for each additional 50	- - -	1 per 75
Manufacturing, warehouses, workshops, loft buildings, foundries & similar establishments[5,9]	1 2 3 4 5 1 for each additional 30	1 - 9 10 - 24 25 - 49 50 - 74 75 -100		Up to 100 1 per 10 Over 100 1 per 15[6,7]	1 shower for each 15 persons exposed to excessive heat or to skin contamination with poisonous, infectious or irritating materials	1 per 75
Dwelling or apartment houses[4]	1 for each dwelling unit		----	1 for each dwelling unit	1 for each dwelling unit	- - -

***Whenever urinals are provided, one (1) water closet less than the number specified may be provided for each urinal installed, except the number of water closets in such cases shall not be reduced to less than two-thirds (2/3) of the minimum specified.

1. The figures shown are based upon one fixture being the minimum required for the number of persons indicated or any fraction thereof. In applying this schedule of facilities, consideration shall be given to the accessibility of the fixtures. Conformity purely on a numerical basis may not result in an installation suited to the need of the individual establishment. For example, schools should be provided with toilet facilities on each floor having classrooms. The Director of Public Health may approve variances from this schedule when its literal application is impracticable.

2. Minimum plumbing facilities for buildings or occupancies not shown in this table shall be as required by the Director of Public Health.

3. Drinking fountains shall not be installed in toilet rooms or on janitor services sinks or within 12" of any sink faucet.

4. Kitchen sinks --- one (1) for each dwelling unit.

5. As required by the American Standard Safety Code for Industrial Sanitation in Manufacturing establishments (ASA Z4.1 ---1942).

6. Where there is exposure to skin contamination with poisonous, infectious, or irritating materials, provide one (1) lavatory for each five (5) persons.

7. Twenty-four (24) lineal inches of wash sink or eighteen (18) inches of a circular basin, when provided with water outlets for such space, shall be considered equivalent to one (1) lavatory.

8. (a) Floor-type urinals; Floor type trough urinals are prohibited.

(b) Wall-type trough urinals shall be acid resistant and each such urinal shall be not less than six (6) inches deep and shall be furnished with one-piece backs and have strainers with outlets at least one and one-half (1 1/2) inches in diameter. The wash-down pipe shall be perforated so as to flush with an even curtain of water against the back of the urinal. Urinal tanks shall have a flushing capacity of not less than one and one-half (1 1/2) gallons of water for each two (2) feet of urinal length.

(c) Equivalent Length --- Trough urinals shall be figured on the basis of (1) urinal for each eighteen (18) inches of length, provided that ---

Length of Urinal	24"	36"	48"	60"	72"
Equivalent Number of Urinals	1	2	2	3	4

(d) Surround materials --- Wall and floor space to a point one (1) foot in front of urinal lip and four (4) feet above the floor, and at least one (1) foot to each side of the urinal shall be lined with non-absorbent material.

9. (a) Toilet facilities shall be provided in separate rooms for each sex if there are more than four (4) persons of mixed sex employed.

(b) Handwashing basins supplied with hot and cold water shall be provided in commercial food handling establishments for the use of employees convenient to their work area. The basin shall be equipped with an approved hot and cold water mixing faucet.

(c) Service sinks used for mopping and other similar cleaning operations shall be provided in food markets, taverns and restaurants. Office buildings shall be provided with at least one service sink on each floor of the building. Janitor service sinks will not be required in office areas of less than 2000 square feet.

10. All places where hand washing facilities are required shall have hot and cold water. Such fixtures shall be provided with approved mixing valves.

11. Includes only food service establishments serving food or drink for consumption on the premises.

INTRODUCED and read for the first time this 12th day of January, 1970.

PASSED by the Council at a regular meeting thereof on the 24th day of February, 1970.

KING COUNTY COUNCIL
KING COUNTY WASHINGTON

Bill Reams
Chairman of the County Council

ATTEST:

Ralph R Stendell
Clerk of the Council

APPROVED this 28th day of February, 1970.

John D Spellman
King County Executive

ORDINANCE READINGS
1st 1-12-70
2nd 2-9-70
3rd 2-24-70
Effective Date